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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,989	04/05/2001	Jed W. Fahey	046585/0138	4463

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EXAMINER

DELACROIX MUIRHEI, CYBILLE

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 01/16/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/825,989

Applicant(s)

FAHEY ET AL.

Examiner

Cybille Delacroix-Muirheid

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48-52 and 54-57 is/are allowed.
- 6) ☒ Claim(s) 58-60, 62, 63, 68-70 is/are rejected.
- 7) ☒ Claim(s) 53, 61, 64-67 and 71 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

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DETAILED ACTION

The following is responsive to Applicant's amendment received Oct. 22, 2002.

No claims are cancelled. New claims 68-71 are added. Claims 48-71 are currently pending.

Information Disclosure Statement

Applicant's Information Disclosure Statement received Aug. 22, 2002 has been considered.

Please refer to Applicant's copy of the 1449 submitted herewith.

However, the IDS received Oct. 22, 2002 has not been considered because the references have not been received. The IDS has been placed in the file.

Response to Amendment

The objection of claim 53 set forth in paragraph 1 of the office action mailed May 22, 2002 is maintained because there is no amendment authorizing the replacement of "or" with --and--.

The previous claims rejection under 35 USC 112, paragraph 2 set forth in paragraphs 2-3 of the office action mailed May 22, 2002 is **withdrawn** in view of Applicant's amendment and the remarks contained therein.

The previous claims rejections under 35 USC 102(b) and 35 USC 103(a) set forth in paragraphs 4-10 of the office action mailed May 22, 2002 **are withdrawn** in view of Applicant's amendment and the remarks contained therein.

However, Applicant's amendment necessitates the following new ground(s) of rejection.

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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3. Claims 58, 59, 62, 63, 68-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al., 4,158,656 (already of record) in view of Pusateri et al., 5,882,646 and Cho et al., WO 9419948.

Jones et al. disclose a method for extracting glucosinolates, the method comprising contacting seed material (rapeseed) with an aqueous-lower alkanol (water-alcohol, i.e. ethanol)solvent solution at a temperature below 60° C and under conditions so as to prevent enzymatic degradation of the glucosinolates. Jones et al. additionally disclose that the temperature is kept below 60° C in order to prevent activation of the myrosinase. Please see claim 1; col. 1, lines 3-6; col. 4, lines 44-63.

Jones et al. do not disclose that the isolated glucosinolates are added to food; however the Examiner refers to (1) Pusateri et al., which disclose that brassica vegetables contain glucosinolates which are helpful in fighting disease. Pusateri et al. additionally disclose that glucosinolates are converted to isothiocyanates which are known chemoprotective agents. Please see col. 1, lines 12-24; and (2) Cho et al., which discloses that isothiocyanates such as sulforaphane, isolated from Brassica, are known to detoxify carcinogens. Cho et al. additionally disclose a food product which contains the sulforaphane. Please see claim 25; the abstract; pages 6-7.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Jones et al. by adding the isolated glucosinolates to food products because, in view of the prior art especially Cho et al., one of ordinary skill in the art would

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reasonably expect that foods supplemented with such chemoprotective agents would serve to reduce the risk of cancer in humans. Such a modification would have been motivated by the reasonable expectation of producing a food product conferred with healthy anticancer properties.

With respect to the claimed food products (claims 68-69), it would have been obvious and well within the capability of the skilled artisan to determine the desired, conventional food products within which to incorporate the glucosinolates.

Finally, homogenization is an art-recognized result-effective variable and it would have been obvious to one of ordinary skill in the art to modify it in the method of the prior art.

Claim 71 is objected to as being dependent upon a rejected claim.

4. Claims 58, 59, 60, 63, 68-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anjou et al., 4,083,836 in view of Pusateri et al., 5,882,646 and Cho et al., WO 9419948.

Anjou et al. teach a method for extracting or leaching glucosinolates from seed material, the method comprising obtaining a meat fraction of the seed material and subjecting the meat fraction to a wet state at 80-100°C and leaching the glucosinolates by water, wherein the temperature of the leaching is 60-80°C. Please see the abstract; col. 5, lines 21-57.

Anjou et al. do not disclose that the isolated glucosinolates are added to food; however the Examiner refers to (1) Pusateri et al., which disclose that brassica vegetables contain glucosinolates which are helpful in fighting disease. Pusateri et al. additionally disclose that glucosinolates are converted to isothiocyanates which are known chemoprotective agents. Please see col. 1, lines 12-24; and (2) Cho et al., which discloses that isothiocyanates such as

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sulforaphane, isolated from Brassica, are known to detoxify carcinogens. Cho et al. additionally disclose a food product which contains the sulforaphane. Please see claim 25; the abstract; pages 6-7.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Anjou by adding the isolated glucosinolates to food products because, in view of the prior art especially Cho et al., one of ordinary skill in the art would reasonably expect that foods supplemented with such chemoprotective agents would serve to reduce the risk of cancer in humans. Such a modification would have been motivated by the reasonable expectation of producing a food product conferred with healthy anticancer properties.

With respect to claim 60, Anjou et al. do not disclose that the temperature of the leach water is 100°C; however, since Anjou et al. establish that the glucosinolate leaching process is temperature dependent, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the leaching method of Anjou et al. such that the temperature is effective to result in optimum extraction of glucosinolates from the seed material. Such a modification would have been motivated by the reasoned expectation of successfully extracting glucosinolates from the seed material.

With respect to the claimed food products (claims 68-69), it would have been obvious and well within the capability of the skilled artisan to determine the desired, conventional food products within which to incorporate the glucosinolates.

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Finally, homogenization is an art-recognized result-effective variable and it would have been obvious to one of ordinary skill in the art to modify it in the method of the prior art.

Claim 71 is objected to as being dependent upon a rejected claim.

Conclusion

Claims 58, 59, 60, 62, 63, 68-70 are rejected.

Claims 53, 61, 64-67, 71 are objected to.

Claims 48-57 are free from the prior art.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cybille Delacroix-Muirheid whose telephone number is (703) 306-3227. The examiner can normally be reached on Tue-Fri from 8:30 to 6:00. The examiner can also be reached on alternate Mondays.

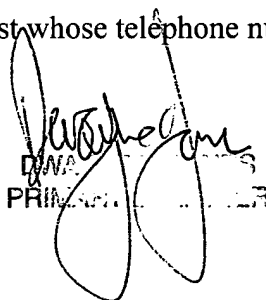
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel, can be reached on (703) 308-4725. The fax phone number for this Group is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.

CDM



Jan. 9, 2003



CDM
PRH